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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/696,685	10/26/2000	Stijn Van Even	06698-081001	4576

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EXAMINER

STORM, DONALD L

ART UNIT	PAPER NUMBER
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2654

DATE MAILED: 04/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/696,685

Applicant(s)

EVEN ET AL.

Examiner

Donald L. Storm

Art Unit

2654

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,9-14,16 and 21-36 is/are rejected.
- 7) ☒ Claim(s) 3,5-8,15 and 17-20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Information Disclosure Statement

2. A copy of the International Search Report (Form PCT/ISA/210) (received March 29, 2002) is present. The search report and its cited documents have been considered by the Examiner.

Drawings

3. The corrected substitute drawings (received July 12, 2004) are present and are now the Figs. 1-15 of record (27 sheets). These drawing sheets are substantively acceptable to the Examiner.

4. The Examiner notes, without objection, the possibility of informalities in the drawings. It is in the best interests of the patent community that the Applicant be aware of these editorial situations and consider correcting minor errors during normal review and revision of the drawings.

In Fig. 12, between boxes 1205 and 1210, a line goes off to the right to connect to box 1280. Should this line be a directed line, indicated by an arrow?

Claim Informalities

5. Claims 3, 5-8, 15, and 17-20 are objected to as being (directly or indirectly) dependent upon a rejected base claim. See MPEP § 608.01(n)V. The claim(s) would be allowable over the

prior art of record if rewritten to include all of the limitations of the base claim and any intervening claims. If any objections or rejections under 35 U.S.C. 112 appear in this Office action, the claim(s) should also be rewritten to overcome them.

Claim Rejections - 35 USC § 112

6. Claim 25-36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. The scope of the invention encompassed by claim 25 is unclear because an artisan would be uncertain of the invention encompassed by the claim. Is the claim scope defined by any appropriate computer-readable medium, or is the claim scope defined by any appropriate propagated carrier signal, or is the claim scope defined by a computer-readable medium that is inherently a propagated carrier signal, or is the claim scope defined by a propagated carrier signal that is inherently a computer-readable medium?

8. The further limitations of the dependent claims continue to be indefinite and do not remove the uncertainty inherited from their independent claim.

Claim Rejections - 35 USC § 101

9. Claims 25-36 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

10. Claim 25 is not limited to a physical medium. The alternate program carrier of claim 25 may be a further arrangement of data, namely, a propagated carrier signal; however, it appears to be functional data, inasmuch as the data of the carrier signal carries other data, software instructions. Functional data alone is not statutory because it is none of a useful process, machine, manufacture, nor composition of matter. The claimed embodiment options a carrier signal, instead of a computer-readable medium. Being only a structure of data, without physical structure, it is not a useful process, machine, manufacture, nor composition of matter. All claim limitations have been considered, and the claimed carrier signal as an alternative embodiment carrying data has been found nonstatutory as a mere arrangement of data. The claim option of a signal comprising software does not recite any structural medium, and it does not recite any data structurally and functionally interrelated to a statutory class of subject matter.

11. The further limitations of the dependent claims continue to describe the arrangement of data, and do not provide the necessary functional and structural interrelationship to satisfy the requirements of 35 U.S.C. 101.

Claim Rejections - 35 USC § 102

Wright

12. Claims 1, 4, 9-13, 16, 21-25, 28, and 33-36 are rejected under 35 U.S.C. 102(e) as being anticipated by Wright et al. [US Patent 6,601,027], already of record.

13. Regarding claim 1, Wright [at title] describes a speech recognition embodiment recognizable as a whole to one versed in the art by explicitly describing the content and functionality of the recited limitations as the following terminology:

performing speech recognition on an utterance to produce a recognition result for the utterance [at column 5, lines 26-43, as recognizer processes an utterance to identify hypotheses about text corresponding to the utterance];

the recognition result including a command [at column 22, lines 1-5, as Select];

the recognition result including a word [at column 22, lines 1-15, as <word>::=PRW];

the recognition result including a phrase [at column 22, lines 1-7, as Through <words> ordered];

determining if the word closely corresponds to a portion of the phrase [at column 22, lines 24-38, as implementing (ordered) to indicate words in the first instance of <words> appearing before words in the second instance of <words>];

producing a speech recognition result [at column 22, lines 1-7, as Through <words> ordered];

producing it if the word closely corresponds to a portion of the phrase [at column 22, lines 24-38, as permitting hypotheses of words in the first instance of <words> appearing before words in the second instance of <words>].

14. Regarding claim 9, Wright also describes:

producing no recognition result if the word does not correspond to the phrase [at column 22, lines 30-37, as throwing out any hypotheses that include out-of-order results].

15. Claims 4, 10, 11, 12, 13, 16, 21, 22, 23, 24, 25, 28, 33, 34, 35, and 36 using the same rationale as in the prior Office action.

Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Wright and Tang

17. Claims 2, 14, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wright et al. [US Patent 6,601,027], already of record in view of Tang [US Patent 5,995,934].

18. Regarding claim 2, Wright describes the included claim elements by dependency as indicated elsewhere in this Office action. Wright discusses English as the language used for inputting and recognizing commands, but does not discuss other languages. In particular, Wright does not explicitly describe a command in the Chinese language as a speech recognition result.

Tang [at columns 1-2] describes recognition of Chinese speech both for conversion to characters and for commands, and Tang describes:

a recognition result comprises a command in the Chinese language [at column 2, lines 1-3, as the determined command according to acoustic models];

the result is a recognition result from speech [at column 1, lines 53-54, as the recognition sequences are in Chinese speech].

As indicated, Tang shows that a speech recognition result comprising a command in the Chinese language was known to artisans at the time of invention. Since Tang [at column 1, lines 12-44] also points out that accurate recognition of Chinese speech relies on language context information to resolve the ambiguities in Chinese characters because keyboard entry of Chinese characters is tedious, it would have been obvious to one of ordinary skill in the art of using context in speech recognition systems that Wright both uses context for reliable results and further provides a contextual method to correct errors that remain. Since the methods used to provide accurate recognition of Chinese speech are similar to the methods that Wright uses, it would have been obvious to one of ordinary skill in the art of speech recognition at the time of invention to include the concepts described by Tang at least a speech recognition result comprising a command in the Chinese language to correct Chinese text in Wright's system because that would provide a way to correct errors that remain after recognition of speech in the Chinese language without resorting to tedious keyboard entry.

19. Claims 14 and 26 set forth additional limitations similar to limitations set forth in claim 2. Wright and Tang describe and make obvious the additional limitations as indicated there.

Response to Arguments

20. The prior Office action, mailed March 22, 2004, requires corrected drawings, objects to the specification and claims, and rejects claims under *35 USC § 112*, *§ 101*, and *§ 102*, citing Wright. The Applicant's arguments and changes in REPLY TO ACTION OF MARCH 22, 2004, filed July 12, 2004, have been fully considered with the following results.

21. With respect to objection to the drawings, the drawings entered by amendment can be seen clearly. Accordingly, the objections are removed.

22. With respect to objection to the specification as lacking proper definition for symbols, the Applicant's argument appears to be that the specification contains a full, clear, concise, and exact description of the invention without a definition for the symbols because the symbols were removed from the claims. This argument is persuasive. Accordingly, the objection is removed.

23. With respect to objection to the specification's out-of-date reference to related applications, the changes entered by amendment provide a sufficient citation. Accordingly, the objection is removed.

24. With respect to objection to the claims as dependent upon a rejected base claim, the claims remain dependent upon rejected base claims. Accordingly, the objections are maintained.

25. With respect to rejection of claims under *35 USC § 112* as lacking sufficient definiteness, the changes entered by amendment provide clear descriptions of the claimed subject matter of

claims 2 and 14. Accordingly, those rejections of claims 2 and 24 are removed. Claim 26 continues to be indefinite due to changes entered by amendment of claim 25; please see new grounds of rejection.

26. With respect to rejections of claims under 35 USC § 101, the Applicant's arguments appear to be that a computer readable medium and a propagated carrier signal are both statutory subject matter. This argument is not persuasive because a propagated carrier signal is not any one of a process, machine, manufacture, or composition of matter.

The Applicant's arguments have been fully considered but they are not persuasive. Accordingly, the rejection is maintained.

27. With respect to rejection of claims under 35 USC § 102, citing Wright, the Applicant's arguments appear to be as follows:

a. The Applicant's argument appears to be that Wright's correspondence of the word (for example, <saw>) is correspondence to words in a text result of a previous speech recognition, and only to those words, not a correspondence to words (for example, giraffe) in the phrase (for example, through <giraffe> ordered) that results from the same, current speech/command recognition that produced the word recognized again during current speech/command recognition. This argument is not persuasive because Wright also determines a correspondence between the word saw in the current speech/command recognition result and giraffe in the current speech/command's phrase result. The claim merely requires that the word saw in the current speech/command recognition result correspond to something in the phrase through giraffe ordered. In Wright, the correspondence between words in the currently

recognized command phrase is that they have a certain order in the previous recognition result. One correspondence between the currently recognized words saw and giraffe in the recognized command phrase is selection from a grammar limited to words appearing in the previous recognition result. Here, the particular correspondence is that the currently recognized word giraffe in the recognized command phrase is selected from a grammar limited to words in the previous recognition result that appear later than the word <saw> in the previously recognized text..

b. The Applicant's argument appears to be directed to a comparison involving the word resulting from current speech/command recognition to the phrase resulting from current speech/command recognitions. This argument is not persuasive because the feature of comparing within the result of current recognition, upon which the Applicant's argument relies, is not recited in the rejected claims. There is nothing in the independent claims limiting the correspondence to a comparison of one section of the speech/command recognition result to another section of the speech/command recognition result.

The Applicant's arguments have been fully considered but they are not persuasive. Accordingly, the rejections are maintained.

28. The Applicant also argues that Wright's function of throwing out hypotheses for which the "ordered" requirement is not met does not correspond to the action of producing no recognition result. This argument is not persuasive because Wright's recognition result includes the hypothesis that is permitted when the ordered parameter is satisfied. The rejection is maintained.

However, the prior Office action was not sharp on this point because the Examiner

allowed a typographical error to remain in the explanation of the rejection of claim 1. The Examiner apologizes for missing the error.

To explain how Wright meets each limitation of claim 1, the Examiner treated last limitations of claim 1 as follows:

producing a speech recognition result if the word closely corresponds to a portion of the phrase [at column 22, lines 1-7, as Through <words> ordered];

determining if the word closely corresponds to a portion of the phrase [at column 22, lines 24-38, as permitting hypotheses of words in the first instance of <words> appearing before words in the second instance of <words>].

The error there resulted in incorrect claim language. The determining step was treated earlier, and the final limitation of the claim is the producing step. The Examiner's treatment of the limitations should have read as follows:

producing a speech recognition result [at column 22, lines 1-7, as Through <words> ordered];

producing it if the word closely corresponds to a portion of the phrase [at column 22, lines 24-38, as permitting hypotheses of words in the first instance of <words> appearing before words in the second instance of <words>].

For completeness, the rejections of claim 1 and claim 9 are reproduced in this Office action with the typographical correction made.

Conclusion

29. Any response to this action should be mailed to:

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

or faxed to:

(703) 872-9306, (for formal communications; please mark "EXPEDITED
PROCEDURE")

Or:

(703) 872-9306, (for informal or draft communications, and please label
"PROPOSED" or "DRAFT")

Patent Correspondence delivered by hand or delivery services, other than the USPS,
should be addressed as follows and brought to U.S. Patent and Trademark Office,
Customer Service Window, **Mail Stop AF**, Randolph Building, 401 Dulany Street,
Alexandria, VA 22314


30. Applicant's amendment necessitated the new ground(s) of rejection presented in this
Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).
Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE**
MONTHS from the mailing date of this action. In the event a first reply is filed within **TWO**
MONTHS of the mailing date of this final action and the advisory action is not mailed until after
the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period
will expire on the date the advisory action is mailed, and any extension fee pursuant to
37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

31. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donald L. Storm, of Art Unit 2654, whose telephone number is (703) 305-3941. The examiner can normally be reached on weekdays between 8:00 AM and 4:30 PM Eastern Time. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (703) 305-9645.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Inquiries regarding the status of submissions relating to an application or questions on the Private PAIR system should be directed to the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028 between the hours of 6 a.m. and midnight Monday through Friday EST, or by e-mail at: ebc@uspto.gov. For general information about the PAIR system, see <http://pair-direct.uspto.gov>.


Donald L. Storm
March 24, 2005


RICHEMOND DORVIL
SUPERVISORY PATENT EXAMINER